

S/N 10/586956

Amendments to the Drawings:

Please replace the original drawing with the attached replacement sheet.

FIG. 9 has been amended to be labeled as "Prior Art".

Attachment: Replacement Sheet FIG. 9

S/N 10/586956

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and following remarks.

Drawing Objection

The drawing is objected to for the reason noted in the office action.

An appropriate legend has been added to FIG. 9.

Withdrawal of the objection is requested.

Specification

The figure number has been amended to correctly identify the drawing.

Withdrawal of the objection is requested.

Obviousness Rejections

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karauchi (JP10-321900) in view of Maeno (JP2001-168376). Applicants respectfully traverse this rejection.

Claim 1 recites the light receiving element being arranged to receive light refracted in passing through the inclined surface. A benefit of passing refracted light through the inclined surface includes, but is not limited to, an increase in the amount of infrared light which the light receiving element receives thereby ensuring that the light receiving sensitivity of the light receiving element is not degraded. (page 8, lines 12-24) Karauchi neither discloses nor suggests this feature.

As correctly pointed out by the Examiner, Karauchi does not expressly disclose that the light receiving element is arranged to receive light refracted in passing through the inclined surface. Karauchi discloses that the leak light emitted from the light emitting device LD is totally reflected on the reflectors 16 and 18 and then enters into the photo detector PD (see paragraph 0014). Further, Karauchi teaches coating the outer surface of the reflectors 16 and 18 with a metal thin film in order to make more reliable total internal reflection (see paragraph 0015). Therefore, the arrangement of receiving internal

S/N 10/586956

reflected light in Karauchi is quite different from the arrangement of receiving refracted light in claim 1. Karauchi fails to disclose, and teaches away from, the light receiving element being arranged to receive light refracted in passing through the inclined surface, as recited by claim 1.

Maeno teaches a light receiving element 13 sealed in a light-transmissive resin 16 (see Abstract). The variant hemispherical type lens 14 is a light-receiving lens with which the light-receiving side is formed on the upper surface of the light-receiving lens (paragraph 0015). Therefore, Maeno teaches a hemispherical type lens made of a light-transmissive resin to refract light.

It would not have been obvious to one of ordinary skill in the art, and there is no suggestion or motivation, to combine the conflicting teachings of the refraction of light of Maeno with the reflection of light of Karauchi. Therefore, it would be improper to combine Karauchi with Maeno and the applicants respectfully request that the rejection be withdrawn.

Claims 2-6 are allowable at least by virtue of their dependence on independent claim 1 or intervening dependent claims. The rejections of these claims should be withdrawn. Applicants do not concede the correctness of the rejections.

S/N 10/586956

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the attorney-of-record, Douglas P. Mueller, at the below-listed telephone number.

Dated: June 8, 2009

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER &
LARSON, P.C.
P.O. Box 2902
Minneapolis, MN 55402-0902
(612) 455-3800

By: 

James A. Larson
Reg. No. 40,443 for
Douglas P. Mueller
Reg. No. 30,300
JAL/dpm/llf